

CHOLERA MORBUS:

ITS CAUSES,
PREVENTION, AND CURE:

WITH

DISQUISITIONS

AS TO

CONTAGIOUS OR NON-CONTAGIOUS NATURE

OF THE

DREADFUL MALADY,

BY

SIR HENRY HALLFORD,

SIR GILBERT BLANE,

AN EMINENT BIRMINGHAM PHYSICIAN,

AND TWO

LANCET, AND MEDICAL GAZETTE,

TOGETHER WITH

AMPLE DIRECTIONS

REGARDING IT,

By the College of Physicians and Board of Health.

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CHOLERA MORBUS ;

ITS CAUSES, &c.

THERE is now no question of the existence of Sporadic Cholera within twenty-four hours' sail of England. The accounts from Hamburg of the 14th instance, that up to that day, 55 persons, all of them of the lowest ranks in life, had been attacked by the disease ; that 31 had died, and only 3 were reported as recovered.

The same precautions which were adopted in respect to Riga, have been adopted respecting Hamburg—the vessels from that port are subjected to severe quarantine, and neither goods nor passengers permitted to be landed, until Time, the great physician, has tested their soundness.

It seems by no means improbable that in a week or two the Cholera may reach England—for, in the first place, if the disease be really infectious, the communication between England and Hamburg, carried on by the smugglers, is sure to bring it ; and in the second place, if it be dependent on the state of the atmosphere (which all experience seems to prove, as in no instance has the strictest military cordon sufficed to ban it in), it will come were all the soldiers in England employed as coast guards, and were all the ports in Europe declared suspected. To an evil which to all seeming is inevitable, it is the part of wise men to submit as they best may. To care and temperance, Cholera has nowhere, we believe, been found a formidable enemy. If it do make its appearance in London, we say not that the careful and temperate are to expose them-

selves without necessity, but we do say, that whoever advises any other precaution than care and a physician, will, if trusted, only add tenfold to the evil which he seeks to alleviate.

(From the London Gazette, Oct. 21.)

At the Council-Chamber, Whitehall, the 20th day of October 1831, by a Committee of the Lords of His Majesty's Most Hon. Privy Council.

The quarantine regulations established by the Government are sufficient, it is confidently hoped, to prevent the disorder from being communicated through any intercourse with the continent in the regular channel of trade or passage, but they cannot guard against its introduction by means of its secret and surreptitious intercourse which is known to exist between the coast of England and the opposite shore.

By such means this fatal disorder, in spite of all quarantine regulations, and of the utmost vigilance on the part of the Government, might be introduced into the united kingdom; and it is clear that this danger can only be obviated by the most strenuous efforts on the part of all persons of any influence, to put a stop to such practices; the utmost exertions should be used to effect this end. The magistrates, the clergy, and all persons resident on the coast, it is hoped will endeavour to impress upon the population of their respective districts, (and particularly of the retired villages along the sea-shore), the danger to which they expose themselves in engaging in illicit intercourse with persons coming from the continent; and should appeal to their fears in warning them of the imminent risk which they incur by holding any communication with smugglers, and others who may evade the quarantine regulation.

Every large town should be divided into districts, having a district committee of two or three members, one of whom

should be of the medical profession, to watch over its health, and to give the earliest information to the Board of Health, in town, whose instructions they will carry into effect.

As the most effectual means of preventing the spreading of any pestilence has always been found to be the immediate separation of the sick from the healthy, it is of the utmost importance that the very first case of cholera which may appear should be made known as early as possible; confinement of the sick would not only endanger the safety of the patient, but has been in the treatment of the cholera has been found mainly to depend on medical assistance having been given in the earliest stage of the disease, would likewise deprive the patient of his best chance of recovery.

To carry into effect the separation of the sick from the healthy, it would be very expedient that one or more houses should be kept in view in each town or its neighbourhood, as places to which every case of the disease, as soon as detected, might be removed, provided the family of the affected person consent to such removal, and in case of refusal, a conspicuous mark (a flag, for example) should be placed in front of the house, to warn persons that it is in quarantine; and even when persons with the disease shall have been removed, and the house shall have been purified, the word 'Caution' should be substituted as denoting suspicion of the disease, and the inhabitants of such house shall not be at liberty to move out or communicate with other persons until, by the authority of the local board, the mark shall have been removed.

Whenever it may be allowed to remove the sick from their habitations to the previously selected and detached buildings, the houses from which they have been so removed, as well as the houses in which the sick has chosen to remain, should be thoroughly purified in the following manner:—

Decayed articles, such as rags, cordage, papers, old clothes, hangings, should be burnt; filth of every description removed, clothing and furniture should be submitted to copious effu-

sions of water, and boiled in a strong ley; drains and privies thoroughly cleansed by streams of water and chloride of lime; ablution of wood work should be performed by a strong ley of soap and water; the walls of the house, from the cellar to the garret, should be hot lime-washed, all loose and decayed pieces of plastering should be removed.

Free and continued admission of fresh air to all parts of the house and furniture should be enjoined for at least a week.

It is recommended that those who may fall victims to this formidable disease, should be buried in a detached ground in the vicinity of the house that may have been selected for the reception of cholera patients. By this regulation it is intended to confine as much as possible every source of infection in one spot; on the same principle, all persons who may be employed in the removal of sick from their own houses, as well as all those who may attend upon cholera patients in the capacity of nurses, should live apart from the rest of the community.

Much, however, may be done, even in these difficult circumstances, by following the same principles of prudence, and avoiding all unnecessary communication with the public out of doors; all articles of food, or other necessaries required by the family, should be placed in the front of the house, and received by one of the inhabitants of the house, after the person delivering them shall have retired.

Until the time during which the contagion of cholera lies dormant in the human frame, has been more accurately ascertained, it will be necessary, for the sake of perfect security, that convalescents from the disease, and those who have had communication with them, should be kept under observation for a period not less than 20 days.

The occupiers of each house where the disease may occur, or be supposed to have occurred, are enjoined to report the fact immediately to the local board of health in the town where they reside, in order that the professional member of such board may immediately visit, report, and if permitted to do

so, cause the patient to be removed to the place allotted to the sick.

In every town the name and residence of each of the members of the district committee should be fixed on the doors of the church, or other conspicuous place.

All intercourse with any infected town, and the neighbouring country, must be prevented by the best means within the power of the magistrates, who will have to make regulations for the supply of provisions; but such regulations are intended only for extreme cases, and the difficulty of carrying such a plan into effect on any extended scale will undoubtedly be great, but as a precaution of great importance, it is most essential, that it should be an object of consideration, in order to guard against the spreading of the infection.

The Board particularly invite attention to a fact confirmed by all the communications received from abroad,—viz., that the poor, ill-fed, and unhealthy part of the population, and especially those who have been addicted to drinking spirituous liquors, and indulgence of irregular habits, have been the greatest sufferers from this disease, and that the infection has been most virulent, and has spread more rapidly and extensively in the districts of towns where the streets are narrow, and the population crowded, and where little or no attention has been paid to cleanliness or ventilation. They are aware of the difficulty of removing the evils referred to, active endeavours of all magistrates, resident clergymen, and persons of influence or authority, to promote their mitigation, and as the amount of danger, and necessity of precaution, may become more apparent, they will look with increased confidence to the individual exertion of those who may be enabled to employ them beneficially in furtherance of the suggestions above stated.

BOARD OF HEALTH, COLLEGE OF PHYSICIANS. Oct. 20.

The following are the early symptoms of the disease in its most marked form, as it occurred to the observation of Dr.

Russell and Dr. Barry, at St. Petersburg, corroborated by the accounts from other places, where the disease has prevailed :—

Giddiness, sick stomach, nervous agitation, intermitted, slow, or small pulse, cramps beginning at the tops of the fingers and toes, and rapidly approaching the trunk, give the first warning.

Vomiting or purging, or both these evacuations, of a liquid like rice-water, or whey, or barley-water, come on ; the features become sharp and contracted, the eye sinks, the look is expressive of terror and wildness ; the lips, face, neck, hands and feet, and soon after the thighs, arms, and whole surface, assume a leaden, blue, purple, black, or deep brown tint, according to the complexion of the individual, varying in shade with the intensity of the attack. The fingers and toes are reduced in size, the skin and soft parts covering them are wrinkled, shrivelled, and folded ; the nails put on a bluish pearly white ; the larger superficial veins are marked by flat lines of a deeper black ; the pulse becomes either small as a thread, and scarcely vibrating, or else totally extinct.

The skin is deadly cold, and often damp, the tongue always moist, often white and loaded, but flabby and chilled, like a piece of dead flesh. The voice is nearly gone ; the respiration quick, irregular, and imperfectly performed. The patient speaks in a whisper. He struggles for breath, and often lays his hand on his heart to point out the seat of his distress. Sometimes there are rigid spasms of the legs, thighs, and loins. The secretion of urine is totally suspended : vomiting and purgings, which are far from being the most important or dangerous symptoms, and which in a very great number of cases of the disease have not been profuse, or have been arrested by medicine in the attack, succeed.

It is evident that the most urgent and peculiar symptom of this disease is the sudden depression of the vital powers ; proved by the diminished action of the heart, the coldness of the surface and extremities, and the stagnant state of the whole

circulation. It is important to advert to this fact, as pointing out the instant measures which may safely and beneficially be employed where medical aid cannot immediately be procured. All means tending to restore the circulation and maintain the warmth of the body should be had recourse to without delay. The patients should always immediately be put to bed, wrapped up in hot blankets, and warmth should be sustained by other external applications, such as repeated frictions with flannels and camphorated spirits; poultices of mustard and linseed (equal parts) to the stomach, particularly where pain and vomiting exist; similar poultices to the feet and legs, to restore their warmth. The returning heat of the body may be promoted by bags containing hot salt or bran applied to different parts of it. For the same purpose of restoring and sustaining circulation, white wine whey, with spice, hot brandy and water, or oil volatile, in the dose of a teaspoonful in hot water, frequently repeated, or from five to twenty drops of some of the essential oils, as pepper mint, cloves, or calput, in a wine glass of water, may be administered; with the same view, where the stomach will bear it, warm broth with spice may be employed. In very severe cases, or where medical aid is difficult to be obtained, from 20 to 40 drops of laudanum may be given, in any of the warm drinks previously recommended.

These simple means are proposed as resources in the incipient stage of the disease, where medical aid has not yet been obtained.

HENRY HALFORD, President of the Board.

WARNING TO THE BRITISH PUBLIC
 AGAINST THE ALARMING APPROACH OF THE INDIAN CHOLERA.
By SIR GILBERT BLANE, Bart. F.R.S.
 October, 1831.

The Writer of this has been irresistibly impelled to this task by a sense of duty to his Country, and his unfeigned

anxiety for its safety, embracing that of his friends and family, and he will confess, even the small residue of his own life, the remnant of old age and growing infirmities.

In case it should be asked who is he who thus puts himself so forward on this occasion ; it is due to the public to answer by shewing what claims he has to their confidence.

He has for more than fifty years applied his mind to studies and duties nearly connected with subjects of this nature. His first public situation was that of physician to the great fleets which were employed in the West Indies and on the coast of North America, during the three or four last years of the American war : he served for seven years as a Commissioner of sick and wounded seamen in the late war : he was dispatched in 1809 by the British Government on a special mission to the island of Walcheren to inspect and report on the state of an army of nearly forty thousand men then serving in Zealand, and labouring under a most disastrous state of sickness : he has been twelve years of his life Physician to St. Thomas's Hospital : he may say that he was engaged for upwards of thirty years in extensive private practice, and was Senior Physician to his late Majesty George IV. during the whole of his reign.

It is not likely that a paternal Government, like our own, should be unheedful of the extreme danger of the country, and they accordingly established a Board of Health some months ago, for the purpose of checking the progress of a disease so novel,* so rapid in its progress, so alarmingly near in its approaches : so rapid and so near indeed, that the writer of this ventures to predict, that unless some early, energetic, and well-judged measures for its exclusion and prevention be adopted, it will be contrary to the analogy of its past progress if it does

* There are some obscure notices of it in an ancient writer, and what is believed to be an incorrect description of it in some parts of India about seventy years ago. See Dr. Hawkins's Description of the Cholera in Russia.

not make its appearance in the eastern coasts of England or Scotland in a time too frightful to name. And the writer of this cannot in conscience abstain from mentioning, with deference to the source from which the instructions of the above-mentioned Board emanate, that he is humbly of opinion, that it is a material omission in them, that the Orders of the Board are not required to commence till the disease has actually made a landing, and taken effect in the country, without reference to such salutary means as might be had recourse to for repelling and barring it out as it were. This has been retorted and rendered in a great measure nugatory the steps that have been hitherto recommended, which would merely in the publication of some papers descriptive of the steps advisable to be taken for arresting the progress and eradicating the infection when it shall appear; and the unquestioned good effects of these are also rendered abortive by their being of a nature so coercive and compulsory, that they run the risk of being felt, and perhaps resisted as incompatible with the liberties and properties of English subjects, an objection expressed by the Board itself. Had the pamphlet containing the description of the preventive measures, be too bulky for the general circulation which would be necessary for giving it effect by stopping and eradicating the disease; and the writer of this understands from his correspondence with the Board that there is no intention of adopting immediately any farther means. But from the statement above made, such means seem absolutely necessary, and are here thrown into the compass of a single sheet, the fruits of the writer's studies adapted for an early, speedy, and universal circulation among the British community, particularly in the sea-port towns on the east coast of England and Scotland, which may be readily done by the quick methods of conveyance by sea and land now in use. In making these communications, particular attention should be paid to what may be described as the squalid part of the population. For he again asserts that should this most ter-

rible of all scourges ever appear on British ground, it would first do so on the eastern coasts fronting the Baltic sea, the mouths of the Elbe and Weser.

This mention of the squalid population leads the writer to an exposition of the practical means which it is his chief object to propose for repelling, arresting, barring out as it were, this enemy, before having to grapple with him on his actual invasion.

The means alluded to are founded on the following law, which this as well as all other species of infection observe more or less in diffusing themselves. It is found, that the squalid population do, by their filth, stench, bad clothing, bad and scanty diet, and other constituents of misery, not only contract and harbour infection, but attract, as it were; insomuch that it always happens that in such spots it first takes effect, and if there are no such spots, the whole community is safe. This will be best illustrated by an example. When the Court left London on occasion of the last plague in 1665, the Lord Chancellor Clarendon, who accompanied them, relates, in the History of his own Life, that the calamity had fallen almost exclusively on the miserable and indigent, so that, on their return, they missed very few of their friends and acquaintances. It cannot be doubted that since this great and last plague there has been frequent and abundant importation of the *virus* of infection from the manifold increase of commerce, but that it has proved innocuous from its not finding its proper *nidus*.

Upon such facts are founded certain means not liable to the objection of harshness and illegality, and are applicable before the arrival of the disease, and more likely to be peaceably adopted at the quiet recommendation of an individual, than if they proceed from the hand of power. Instead, therefore, of the business being taken in hand by soldiers, sheriffs' officers, and other emissaries of coercion, certain lenient measures may be adopted within the ministration of unarmed civilians, such

as those in the Commission of the Peace or heads of Corporations, and, above all, of the Clergy.

It is said somewhere, that cleanliness is next to godliness, a text which might most appropriately be discussed from the pulpit; at any rate, by domiciliary admonitory visits, lying so admirably within the sphere of clerical duty. But if brooms, mops, and soap are objectionable on the score of dignity, the same cannot be said of intemperance, for the consequences of which no words can be found adequate; for referable to this vice are not only the loss of health, premature death, and individual suffering, but *thence*, *sedition*, and extinction of, and indifference to, all religious obligations and relative duties, as proved by the vicious application of wages imperfectly earned in consequence of the debility, ill health, and sloth induced by such habits, to allay the cravings of a depraved appetite, instead of providing bread for themselves and their families. And were not the disgraceful outrages, the detestable murders and wickedness which broke out this time last year, wholly impotent to the same cause? I allude to the destruction of human existence by fire, and of the renewal of which there is now some appearance.

Now what I mean, with the utmost humility and deference but earnestness, such as are due to those whom I address, the truly reverend and respectable body of the British Clergy, is to suggest what has been deeply imprinted on my own mind by my professional pursuits, that the excruciating sufferings attendant on the disease in question are such, that if inculcated with due gravity as a sanction of those persuasive admonitions which might be addressed to the labouring poor, it is impossible but that practical and efficient impression would be made even on the most ignorant and obdurate subjects. I am sensible that some apology is due on my part for this presumption, but a little explanation will, I apprehend, remove all cause of offence; for without such information as medical men alone are qualified to furnish, clergymen could not be aware of the

power of the instrument which is put into their hands; they could not be aware that this disease may, with truth, be painted as one which is, of all others, attended with such horrible torments, as, adequately appreciated and described, may be deemed in effect of equal potency with the gallows as a dissuasive to vice—certainly far more terrible than transportation for life. Very few indeed escape with their life; and temporal punishments have the advantage of proximity over those denounced in the life to come. The only palliating circumstance is the shortness of the interval between the attack and the grave. But how is this past? In the midst of health the enemy strikes like lightning, clings to the victim, inflicting the most horrible agonies, throwing the whole frame, limbs body and vitals,* into convulsive and spasmodic sufferings, comparable only to the unutterable anguish said to be inflicted by the Inquisition. Of natural diseases the nearest approaching to it is probably one of rare occurrence named *Ileus*† and *Miserere* in Latin, the *Iliac* passion in common parlance.

Before proceeding further, it is my wish to settle the exact import of certain terms.

The epithets *contagious* and *infectious* I employ as synonymous; but I avoid the use of both as much as possible, and comprehend them both under the term *communicable*. It is also desirable, with a view to perspicuity, to state, that of the two terms *epidemick* and *endemick*, both denoting diseases of a general and simultaneous prevalence in a great community, I understand by the former (*epidemick*) those which proceed from the exhalations or secretions of a body labouring under the same disease; of this the plague may serve as an example—

* In some rare cases the limbs are thrown into the most hideous convulsions a few hours after death, a circumstance not recorded in any case either ancient or modern.

† It was the great good fortune of the writer of this to attend successfully a personage of the most exalted rank in this realm, in an attack of this disorder.

by the other (endemic) is meant a disease which proceeds from the exhalations of the earth; of which intermittent fever, commonly called ague, may serve as an example. The want of attention to this simple distinction has given occasion to an incredible amount of unintelligible *jargon*, and multiplied sophistries in the wearisome controversy regarding contagion. I need not add that the epidemic alone are contagious, that is, communicable; the other, the endemic, never are.

And in order to disentangle the subject from further risk of ambiguity, it is only necessary, in addition to the discriminating character already mentioned, to enumerate a few of the most remarkable peculiarities, particularly those marking its difference from the English cholera, recurring *ordinarily* in the end of summer and beginning of autumn. The discharges in the Indian disease consist of a liquid resembling thin gruel; in the English disease they are feculent and bilious. The origin and seat of both is the bowels, and I repeat that after striking a person apparently in good health like lightning, it never quits him till throwing his whole frame, vitals, body, and limbs, into a state of suffering *thence*—paraly more violent than the English malady, it destroys him in a few hours, frequently in a single hour or less. If there is any disease known in England, which is in point of suffering comparable to the former, it is the *Flux* already mentioned. But the most important difference politically considered, is that the Indian cholera has now, after long discussion and controversy, been admitted to be communicable, whereas the English has never been suspected of this.

And as there is no way more simple and convincing to establish the communicable nature of the disease now in question, than a short narrative of its origin and progress from the mouth of the Ganges to the shores of the Baltic and the banks of the Elbe, its interesting though intricate history may here be related.

Its origin can be distinctly traced to a place called Jessore

near one hundred miles N.E. of Calcutta, to which it was brought in August 1817, in consequence of some obscure occurrence of unwholesome circumstances affecting the natives, such as have been known in other instances to have created new diseases in Great Britain and other parts of the world. Preparations were then making for the Pindarree war, by the assemblage of a military force, its stores and baggage, which moved up the Ganges to Upper India, accompanied by this epidemic, and spreading it on all sides against the periodical monsoon to the skirts of the Himalaya mountains, in an irregular manner peculiar to itself, and continued to cling to the army in its movements, which were next directed to the southward, in the direction of the Presidency of Bombay, which place it reached in August 1818, still attended by the epidemic in its peculiarly desultory and anomalous manner of progress. From hence it took a direction eastward, crossing the Decan, still pursuing the line of human intercourse and the seat of war till it reached the coast of Coromandel, along which it took a southerly direction, till it reached that part of it which lies abreast of Ceylon, from the northern extremity of which it is distant about half a degree of latitude. The transition therefore was easy, and was made at this very point, called Jaffnapatam, from whence it spread rapidly, making dreadful ravages. At one of its ports, called Trincomalee, it got on board of the shipping, and broke out in the *Topaze* frigate, in which several men were seized and died; and that vessel having sailed from thence with the disease on board for Mauritius, a voyage of three thousand miles, she arrived there in the end of October, and the disease appeared there in less than three weeks, where, by the Report made by the Governor, it prevailed to the loss of seven thousand lives, the disease having there not been believed to be communicable. From the coast of Coromandel and Ceylon it took a direction eastward. Crossing the bay of Bengal it made its appearance on the opposite coast, from whence it made its way through

the Straits of Malacca and Sunda, and through the great Indian Archipelago to China, where it first appeared in 1820. It ought to have been remarked, in relating what happened at Mauritius, that though the devastation was most deplorable, an instructive fact arose out of it; for in the neighbouring Island of Bourbon, which, though belonging to France, maintains a frequent intercourse with Mauritius, the disease was barred out by a rigorous quarantine, the Governor being impressed with the conviction of its being communicable. There was indeed an exception, which corroborated the proof, for in consequence of a contraband vessel of one island having intercourse with one belonging to the other, about two hundred lives were lost between the harbour and the gate of the town, where it was so effectually arrested by rigorous separation, and sending the subjects affected to the lazaretto, that no more cases occurred. Through another communication by sea it was carried from Bombay to Persia in 1821, by the trade carried on through the Gulf of Ormuz, so as to diffuse itself through the whole of that empire, with the exception of the two great cities of Teheran, the seat of Government, and Ispahan, which were believed to have been saved by the Government ordering the caravans, the route of which the disease had followed, to pass by another route; and this inference is corroborated by its having re-appeared at Teheran in the year 1829, a year in which the precaution above-mentioned had been neglected.

In accordance with the sketch which has thus far been drawn of its progress, the reader will be prepared to learn that this pestilence was conveyed to the mouth of the Tigris, a river falling into the Gulf of Ormuz; from whence through Bassora and Bagdad, it spread by the caravans to Syria and its towns on the Levant, so well known in European commerce,* and that by the mouths of the Volga falling into the

* It is remarkable enough that while the great Oriental epidemic appeared thus on the eastern extremity of the Medi-

Caspian Sea it spread to Astracan, opening a wide door into Russia, through which it spread in 1823. Since this time it has been threatening the whole civilized world, having reached Moscow the same year. Its having next appeared at Orenburg on the confines of Siberia, then at Petersburg, and through it at Riga, Dantzick, and other mercantile towns of the Baltic, is too recently known to require a detailed narrative. But its arrival at Berlin and Vienna in the course of the present year has rendered the alarm too serious to be any longer neglected, and we are assured by the Continental Journals that it has broke out in the country lying between the Baltic and the Elbe, the aboriginal residence of the same Anglo-Saxons who visited and treacherously overran a certain kingdom, on which they stamped their name about thirteen or fourteen hundred years ago ; and the same winds may, in not many hours, waft the infectious matter to our coast.†

Having made this exposition of the progress of the malady, I wish to put the question to any man of sound intellect, that is, any one whose mind is not disqualified by imbecility or prejudice to judge, whether he can deny, nay, whether it is in his power to resist the conviction, that this is a communicable disease. How indeed is this possible in contemplating the continued communication of it by human intercourse over continents and islands, seas and oceans, and without its appearance in any other place, to which it cannot be traced to that line ? The main, and I believe the only plausible cause of that error, has been the great number that have escaped the disease, though equally exposed to the cause as those who have been attacked by it. But let them reflect for a moment, what is known to every peasant, that the same holds true with re-

terranean, the great Western pestilence, the Yellow Fever, was raging at its western extremity, Gibraltar, Malaga, Barcelona, Leghorn, &c.

† Aleppo was also attacked, where 200 persons confined at the residence of the French Consul escaped the malady.

gard to the ordinary diseases admitted by all to be communicable, such as small-pox and measles. And though all communicable diseases have this in common, they all differ, not only as to the proportion of those left unaffected, but as to the rate of mortality of those actually affected; also as to the susceptibility in various temperatures and climates. In the small-pox and measles for instance, many are left unaffected, and with a smaller degree of mortality than in the plague and yellow fever: the two former have also a wider range, for they spread into every corner of the habitable world; whereas the two other are only known in certain climates and degrees of temperature. and in this respect, it is remarkable that the two latter differ much from each other, for the plague has never been known in the torrid or frigid zone; and the yellow fever has hardly been known but in an atmospheric temperature at or above 80 degrees.*

On the retrospect of this, it is impossible not to have some feeling for those who have, either ignorantly or too hastily, neglected preventive precautions; for on the supposition that the disease in question, and some others, are really communicable, the inference is unavoidable, that not only thousands, but myriads have perished by the want of such precautions.

Besides the arguments arising out of the history of its origin and progress, there is one founded on a physical principle, which by a strange misconception has been enlisted on the side of non-contagion: the principle is, that the vast numbers who escape the Indian Cholera is a proof of its proceeding from the atmosphere, and not from the living mortid human body. Now, what can be more obvious than, that if it proceeded from the atmosphere, not a single subject could escape, for every human being, in common with all living creatures, must communicate either by respiration or otherwise with the vivifying principle of the atmosphere, whether pure or contamined.

* And the Indian cholera is not prevented from spreading by any temperature or climate.

nated ; whereas if it proceeded from the breath or perspiration of the living morbid being, it is not only conceivable, but certain that vast numbers must escape by never coming within the sphere of the morbid exhalations of the sick. And as it is of the utmost moment that there should not remain "a hinge on which to hang a doubt" on this question, lest it should relax the zeal of those whose duty it is to exclude and extinguish this horrible epidemic, the following argument must be added, founded equally as the other on the incontrovertible nature of things. For is it not conformable to the purest maxim of reason, that if the cause of this disease consists in some general affection of the atmosphere which all must breathe, it will not be limited to any particular boundary of space or time, that is, it will be contemporaneous among the community resident in a district ; whereas if it proceeds from the human exhalations, it must follow exclusively the movements of those affected by it ; and as this is the case as a matter of fact and observation in the cholera, it follows that it must be communicable, epidemic and progressive, not like agues, confined to one and the same condition of the atmosphere.

As it is another peculiarity of this dreadful impending disease, to require above all others an early and energetic practice ; it is of the last importance, that as many as possible of the community at large, should have some knowledge of what should without a moment's loss of time be put in practice, and the first seizure is so striking that there can be no excuse for delay. It is important to observe that there is a certain characteristic which pervades all the stages of this disease, namely, that there is a notable prostration of the whole powers of life, and as this holds true also of those who are most susceptible, this practice applies to diet as well as medicine ; so that those who can afford it will do well, in order to fortify their constitutions against an attack, to adopt a generous, but perfectly temperate and moderate style of life. In case of an

actual attack, the proper medicines to have in readiness for administration are tincture of opium, more commonly known by the name of laudanum, which ought to be given in some warm cordial drink to the amount of about sixty drops, that is, a middle-sized tea-spoonful, with a table-spoonful of spiritous liquor—brandy has been chiefly recommended. This ought to be repeated in two or three hours by which time medical assistance may probably have arrived. In the mean time a hot bath ought to be prepared, and some hot nourishing broth. The remedies in which most dependence has been placed next to those above-mentioned are calomel, in the dose of twenty grains, and blood-letting. Among the secondary remedies may be mentioned some of the essential oils, such as that of Peppermint and Cajuputa.

In case the reader should discover some want of proper style and arrangement in the preceding pages, the writer begs to offer as an apology his age and infirmities, as well as the urgent necessity of a speedy circulation of the knowledge contained in them, and it was necessary to depart somewhat from technical words and phrases, this tract being intended for the perusal of those who may be designated *laymen*, as distinguished from those who are members of the profession.

REMARKS ON THE CHOLERA MORBUS.

By AN EMINENT BIRMINGHAM PHYSICIAN.

(*From the Lancet, Oct, 22.*)

It need scarcely be said how much it behoves all medical men to keep in view the subject of the wide-spread cholera, and not to suffer themselves to be led from an attentive consideration of all that appertains to it, by the great political questions which at present convulse the whole kingdom.

I totally disagree with Dr. Meacham, as I believe most people will, that the notion of *contagion* in many diseases is "far from being natural and obvious to the mind;" for, since the time that contagious properties have been generally allowed to belong to certain diseases, there has been a strong disposi-

tion to consider this as the most natural and obvious mode of explaining the spreading of other diseases. A person sees evidence of the transmission, *mediate* as well as *immediate*, of small-pox, from one person to another ; and, in other diseases, the origin of which lies in obscurity, he is greatly prone to assign a similar cause which may seem to reconcile things so satisfactorily to his mind. For my part, I admit that I can more easily comprehend the propagation of certain epidemics by contagion, than I can by any other means, *when unaccompanied by sensible atmospheric changes* ; and if I reject contagion in cholera, it is because whatever we have in the shape of fair evidence, is quite conclusive as to the non-existence of any such principle. Indeed abundance of evidence now lies before the public, from various sources, in proof of the saying of Fontenelle being fully applicable to the cholera—"When a thing is accounted for in two ways, the truth is usually on the side most opposed to *appearances*." How well mistaken opinions as to cholera are illustrated in a pamphlet which has just appeared from Dr. Zoubkoff of Moscow. This gentleman, it appears, had been a firm believer in contagion, until the experience afforded him during the prevalence of the disease in that city proved the contrary. He tells us (p. 10), that in the hospital (Yakimanka) he saw, "*to his great astonishment*, that all the attendants, all the soldiers, handled the sick, supported their heads while they vomited, placed them in the bath, and buried the dead ; always without precaution, and always without being attacked by cholera." He saw that even the breath of cholera patients was inhaled by others with impunity ; he saw that throughout the district of which he had charge, the disease did not spread through crowded buildings, or in families where some had been attacked, and that exposure to exciting causes *determined* the attack in many instances. He saw all this, gives the public the benefit of the copious notes which he made of details as to persons, places, &c. and now ridicules the idea of contagion in cholera. Grant to the advocates of contagion in cholera but all the data they require, and they will afterwards prove every disease which can be mentioned to be contagious. Hundreds of people we will say, for instance, come daily from a sickly district to a healthy one, and yet no disease for some time appears ; but at last an "inexplicable condition of the air," and "not appreciable to our senses" (admitted by Dr. McMichael and others as liable to occur, but *only in aid* of contagion), takes place ; cases begin to appear about a particular day, and nothing is now more easy than to make out details of arrivals, there being a wide

field for selection; and even how individuals had spoken to persons subsequently attacked—had stopped at their doors—had passed their houses, &c.—caution is at once connected with antecedence, at least for a time, by the people at large, who see their government putting on cordons and quarantines, and the most vague public rumour becomes an assumed fact. We are told, as may be seen in the quotation given from Dr. Walker's report, that contagionists are driven to the " somehow or other " mode of the introduction of cholera by individuals: so that it may be deplored, with respect to this disease, in the words of Bacon, that " men of learning are too frequently led, from ignorance or credulity, to avail themselves of mere rumours or whispers of experience as confirmation, and sometimes as the very ground-work, of their philosophy, ascribing to them the same authority as if they rested upon legitimate testimony. Like to a government which should regulate its measures, not by official information of its accredited ambassadors, but by the gossipings of newsmongers in the streets. Such, in truth, is the manner in which the instructors of philosophy, as far as experience is concerned, have hitherto been administered. Nothing is found which has been duly investigated, — nothing which has been verified by a careful examination of proof."

In their efforts to make out their case, there would seem to be no end to the contradictions and inconsistencies into which the advocates of contagion in cholera are led. At one moment we are required to believe that the disease may be transmitted through the medium of an unpurified letter, over seas and continents, to individuals residing in countries widely differing in climate, while, in the next, we are told—regarding the numberless instances of persons at all habits who remain unattacked though in close contact with the diseased—that the constitution of the atmosphere necessary for the germination of the contagion is not present; and this, although we see the disease attacking all indiscriminately, those who are not near the sick as well as those who are, at a very short distance, as on the opposite side of a ravine, of a rivulet, of a barrack, or even of a road. They assume that wherever the disease appears, *three* causes must be in operation—contagion—peculiar states of atmosphere, (heat now clearly proved not *essential*, as at one time believed),—and susceptibility in the habit of the individual. However unphilosophical it is held to be to multiply causes, the advocates of contagion are not likely to reduce the number, as this would at once cramp them in their pleadings before a court where sophistry

is not always quickly detected. Those who see irresistible motives for dismissing all idea of contagion, look, on the contrary, for the production of cholera to sources, admitted from remote times to have a powerful influence on our systems, though invisible—though not to be detected by the ingenuity of man—and though proved to exist only by their effects.

Many who do not believe that cholera can be propagated by contagion under ordinary circumstances, have still a strong impression that by crowding patients together, as in hospitals or in a ship, the disease may *acquire* contagious properties. Now we find that when the *experimentum crucis* of extensive experience is contrasted with the feasibility of this, cholera, like ague, has not been rendered one bit more contagious by crowding patients together than it has been shown to be under other circumstances. We do not require to be told that placing many persons together in ill-ventilated places, whether they labour under ague, or catarrh, or rheumatism, or cholera, as well as where no disease at all exists among them, as in the Calcutta black-hole affair, and other instances which might be quoted, *fever*, of a malignant form, is likely to be the consequence, but assuredly not ague, or catarrh, or rheumatism, or cholera. On this point we are furnished with details by Dr. Zoubkoff, of Moscow, in addition to the many previously on record. It may be here mentioned, that on a point which I have already referred to, this gentleman says (p. 43) “I shall merely observe that at Moscow, where the police are remarked for their activity, they cannot yet ascertain who was the first individual attacked with cholera. It was believed at one time that the disease first showed itself on the 17th of September; afterwards the 15th was fixed upon, and at last persons went so far back as August and July.” As this gentleman *had been* a contagionist, occupied a very responsible situation during the Moscow epidemic, and quotes time and place in support of his assertions, I consider his memoir more worthy of translation than fifty of your Keraudrens.

Respecting those mysterious visitations which from time to time afflict mankind, it may be stated that we have a remarkable instance in the “*dandy*” or “*dangy*” disease of the West India islands, which, of late years, has attracted the notice of the profession as being quite a new malady, though nobody, as far as I am aware of, has ever stated it to have been an imported one. We find also that within the last three years a disease, quite novel in its character, has been very prevalent in the neighbourhood of Paris. It has proved fatal in many

instances, and the physicians, unable to assign it a place under the head of previously-described disease, have been obliged to invent the term "Aerodynia" for it. I am not aware that even M. Pariset, the medical chief of quarantine in France, ever supposed this disease to have been imported, and to this hour the cause of its appearance remains in as much obscurity among the Savans of Paris, as that of the epidemic cholera.

Considering all the evidence on the subject of cholera in India, in Russia, Prussia, and Austria, one can scarcely suppress his indignation on perceiving that Dr. Macmichael (p. 31 of his pamphlet) insinuates that the spreading of the disease in Europe has been owing to the views of the subject taken by the medical men of India.

In turning now more particularly to the work, or rather compilation of Dr. Bisset Hawkins, let us see whether we cannot discover among what he terms "marks of haste" in getting it up for "the curiosity of the public," (*curiosum*, Dr. Hawkins!) some evidence of a very important nature on the subject of a disease respecting which we presume he wished to enlighten the public. And first, glancing back to cholera in the Mauritius, Dr. Hawkins might, had he not been so pressed for time, have referred to the appearance of cholera in 1829, at Grandport in that island, when, as duly and officially ascertained, it could not be a question of importation by any ship whatever. The facility with which he supplies us with "facts"—the *faits divers* furnished by Pison, and told by Cullen to produce news whistled in our parlours, than false theories—is quite surprising; he tells us, point blank (p. 31), speaking of India, that "when cholera is once established in a marching regiment, it continues its course in spite of change of position, food, or other circumstances."—Never did a medical man make an assertion more unpardonable, especially if he applies the term *cholera* *regiment* as it is usually applied. But we have him distinct enough as to change of position. Dr. Hawkins leads us to suppose that he has examined the India reports on cholera. What then are we to think, when we find in that for Bengal the following most interesting and conclusive statements ever placed on record? Respecting the Great Army under the Marquis of Hastings, consisting of 11,500 fighting men, and camped in November 1817 on the banks of the Sutlej, the official report states that the disease "as it were in an instant gained fresh vigour, and at once burst forth with irrepressible violence in every direction. Unobeyed to the laws of contact and proximity of situation, which had been observed to mark and

retard the course of other pestilences, it surpassed the plague in the width of its range, and outstripped the most fatal diseases hitherto known, in the destructive rapidity of its progress. Previously to the 14th it had overspread every part of the camp, sparing neither sex nor age in the undistinguishing virulence of its attacks."—"From the 14th to the 20th or 22d, the mortality had become so general as to depress the stoutest spirits. The sick were already so numerous, and still pouring in so quickly from every quarter, that the medical men, although night and day at their posts, were no longer able to administer to their necessities. The whole camp then put on the appearance of an hospital. The noise and bustle, almost inseparable from the intercourse of large bodies of people, had nearly subsided. Nothing was to be seen but individuals anxiously hurrying from one division of a camp to another, to inquire after the fate of their dead or dying companions, and melancholy groups of natives bearing the biers of their departed relatives to the river. At length even this consolation was denied to them, for the mortality latterly became so great that there was neither time nor hands to carry off the bodies, which were then thrown into the neighbouring ravines, or hastily committed to the earth on the spots on which they had expired." Let us now inquire how this appalling mortality was arrested; the report goes on to inform us—"It was clear that such a frightful state of things could not last long, and that unless some immediate check were given to the disorder, it must soon depopulate the camp. It was therefore wisely determined by the Commander-in-chief to move in search of a healthier soil and of purer air," which they found when they "crossed the clear stream of the Bitwahi, and upon its high and dry banks at Erich, soon got rid of the pestilence, and met with returning health." Now just fancy epidemic cholera a disease transmissible by "susceptible articles," and what an inexhaustible stock must this large army, with its thousands of followers, have long carried about with them! Against the above historical fact, men of ingenuity may advance what they please. There is no doubt that, in the above instance, severe cases of cholera occurred *during the move*, the poison taken into the system on the inauspicious spot not having produced its effects at once; it is needless to point out what occurs in this respect in remittent and intermittent fevers. The India reports furnish further evidence of mere removal producing health, where cholera had previously existed. Mr. Bell, a gentleman who had served in India, and who has lately written upon

the disease,* informs us (p. 84) that "removing a camp a few miles has frequently put an entire and immediate stop to the occurrence of new cases; and when the disease prevails destructively in a village, the natives often get rid of it by deserting their houses for a time, though in doing so they necessarily exposed themselves to many discomforts, which, *cetero paribus*, we should be inclined to consider existing causes of an infectious or contagious epidemic." We even find that troops have, as it may be said, *out-marched* the disease, or rather the cause of the disease; that is, moved with rapidity over an extensive surface where the atmosphere was impure, and thereby escaped—on the principle that travellers are in the habit of passing as quickly as they can across the Pontine marshes. Mr. Red says, "In July 1810, I marched from Madras in medical charge of a large party of young officers who had just arrived in India, and who were on their way to join regiments in the interior of the country. There was also a detachment of Sepoys, and the usual number of attendants and camp-followers of such a party in India. The cholera prevailed at Madras when we left it. Until the fifth day's march (fifty miles from Madras) no case of the disease occurred. On that day several of the party were attacked on the line of march; and, during the next three stages, we continued to have intermittent cases. Cholera prevailed in the country through which we were passing. In consultation with the commanding officer of the detachment, it was determined that we should *bury the disease behind us*, and as we were informed that the country beyond the Ghauts was free from it, we marched, without a halt, until we reached the high table land of Mysore. The consequence was, that we left the disease at Vellore, 87 miles from Madras, and we had none of it until we had marched 50 miles further (seven stages), when we again found it at one of our appointed places of encampment; but our camp was, in consequence, pushed on a few miles, and only one case, a fatal one, occurred in the detachment—the man was attacked on the line of march. We again left the disease, and were free from it during the

* This is by far the best work yet published in England on the cholera, but it is to be regretted that the author has not alluded to the works of gentlemen who have a priority of claim to some of the opinions he has published. I think that, in particular, Mr. Owen's book, printed in India, should have been noticed.

next 115 miles of travelling; we then had it during three stages, and found many villages deserted. We once more left it, and reached our journey's end, 260 miles further, without again meeting it. Thus, in a journey of 560 miles, this detachment was exposed to, and left the disease behind it, four different times; and on none of those occasions did a single case occur beyond the tainted spots." What a lesson for Dr. Hawkins! But *for whom* could Dr. Hawkins have written his *curious* book? Hear Mr. Bell, in respect to the common error of the disease following high roads and navigable rivers only:—"I have known the disease to prevail for several weeks at a village in the Southern Mahratta country, within a few miles of the principal station of the district, and then leave that division of the country entirely; or, perhaps, cases would occur at some distant point. In travelling on circuit with the Judge of that district, I have found the disease prevailing destructively in a small and secluded village, while no cases were reported from any other part of the district." What is further stated by Mr. Bell will tend to explain why so much delusion has existed with regard to the progress of the disease being remarkably in the direction of lines of commerce, or great intercourse:—"When travelling on circuit, I have found the disease prevailing in a district *before any report had been made of the fact, notwithstanding the most positive orders on the subject*; and I am persuaded that were any of the instances adduced in support of the statement under consideration strictly inquired into, it would be found that the usual apathy of the natives of India had prevented their noticing the existence of the disease until the fact was brought prominently forward by the presence of Europeans. It should also be brought to mind, that cholera asphyxia is not a new disease to these natives, but seems to be, in many places, almost endemical, whilst it is well known that strangers, in such circumstances, become more obnoxious to the disease than the inhabitants of the country. Moreover, travellers have superadded to the remote cause of the disease, fatigue and road discomforts, which are not trifling in a country where there are neither inns nor carriages." (p. 86.) Cholera only attacks a certain proportion of a population, and is it wonderful that we should hear more of an epidemic on high roads, where the population is greatest? High roads too are often along the course of rivers; and is there not some reason for believing, that there is often along the course of rivers, whether navigable or not, certain conditions of the atmosphere unfavourable to health? When Dr. Hawkins stated, as we find at p. 131,

he has done, that where the inhabitants of certain hilly ranges in India escaped the disease, "these have been said to have interdicted all intercourse with the people below," he should have quoted some respectable authority, for otherwise should we unhappily be visited by this disease, the people of our plains may one day wage an unjust war against the sturdy Highlanders or Welch mountaineers. Little do the dissemers of poisons dream of the high interest of this part of the cholera question, and little can they conceive the extraordinary additions which the description of the contagionists are calculated to bring upon the nation. Let no part of the public suppose for a moment that this is a question concerning method even more than it does the people. There is almost, all are very deeply concerned, the health of the nation more especially so.

We see that the identity of the European and Indian epidemic cholera is admitted on all sides; we have abundant proof that whatever can be said as to the progress of the disease, its attacks, &c., in the former country, have been also noted respecting it in the latter; and Dr. Hawkins, when he put forth his book, had most liberally abundant materials upon which to form a rational opinion. It is by no small effort, therefore, that I can prevent all the respect due to him from evaporating, when he declares, at page 165, that "the disease in India was *probably* communicated from person to person, and that in Europe it has *scarcely* proved so." But Dr. Hawkins is a Fellow of the College of Physicians, and we must not push this point further than to wish others to recollect, that he has told us that he drew up his book in haste; and, moreover, that he wished to gratify the curiosity of the public. The *Rice* story about the house and the fifteen labourers I shall have in good hands, the British Consul at that city, who was required to draw up, for his government, a statement of the progress, &c. of the cholera there, of which the following is an extract:—

"The fact of non-contagion seems determined, as far as a question can be so which must rest solely upon negative evidence. The strongest possible proof is the circumstance, that not one of the persons employed in removing the dead bodies (which is done without any precaution) has been taken ill. *The statement of fifteen labourers being attacked, while opening a pack of hemp, is a notorious falsehood.* Some physicians incline to the opinion, that the disease may sometimes be caught by infection, where the habit of body of the individual is predisposed to receive it; the majority of the faculty, however, maintain a contrary doctrine, and the result of the hospital practice is in their favour. There are 72 persons employed

in the principal hospital here ; of these only two have been attacked, one of whom was an '*Inspecteur de Salle*,' and not in immediate attendance upon the sick. I am assured that the other hospitals offer the same results, but as I cannot obtain equally authentic information respecting them, I confine myself to this statement, on which you may rely. On the other hand, in private families, several instances have occurred where the illness of one person has been followed by that of others: but, generally, only where the first case has proved fatal, and the survivors have given way to grief and alarm. Mercenary attendants have seldom been attacked, and, as mental agitation is proved to be one of the principal agents in propagating or generating the disease, these isolated cases are attributed to that cause rather than infection.

" It is impossible to trace the origin of the disease to the barks; indeed it had not manifested itself at the place from whence they come till after it had broken out here. The nearest point infected was Schowlen at a distance of 200 wersts, and it appeared simultaneously in three different places at Riga, without touching the interjacent country. The first cases were two stone-masons, working in the Petersburg suburbs, a person in the citadel, and a lady resident in the town. None of these persons had the slightest communication with the crews of barks, or other strangers, and the quarter inhabited by people of that description was later attacked, though it has ultimately suffered most.

" None of the medical men entertain the slightest doubt of the action of atmospheric influence—so many undeniable instances of the spontaneous generation of the disease having occurred. Half the town has been visited by diarrhoea, and the slightest deviation from the regimen now prescribed (consisting principally in abstinence from acids, fruit, beer, &c.) invariably produces an attack of that nature, and, generally, cholera; fright, and intoxication, produce the same effect.

" Numerous instances could be produced of persons in perfect health, some of whom had not left their rooms since the breaking out of the disease, having been attacked by cholera, almost instantaneously after having imprudently indulged in sour milk, cucumbers, &c. It is a curious circumstance, bearing on this question, that several individuals coming from Riga have died at Wenden, and other parts of Livonia, without a single inhabitant catching the disease; on the other hand, it spreads in Courland and on the Prussian frontier notwithstanding every effort to check its progress. The intemperance of the Russians during the holidays has swelled the number of fresh cases, the progressive diminution of which had pre-

speedily led us to look forward to a speedy termination of the calamity." This is a pretty fair specimen of the *undeniable* manner in which cholera is proved to be contagious in Europe, and we shall, for the present, leave Dr. Hawkins in possession of the full enjoyment of such proofs.

Respecting cholera in this country, a case has proved fatal here since my last, but regarding which I shall at present say no more. Some attempt was made at Sunderland, to establish that, in the case which I mentioned in my last as having proved fatal there, the disease had been imported from foreign parts, but such enquiry having been made by the collectors of the customs, this proved to be unfounded; the man's name was Robert Henry, a pilot—he died on the 14th of August.

Around we find that, unhappily, the cholera has made its appearance at Hamburgh, fresh information to this effect arrived from our Consul at that place, on Friday the 11th inst. (October). The absurdity of cordons and quarantines are becoming daily more evident. By accounts from Vienna, dated the 26th September, the Imperial Aulic Council had directed various lines of cordons to be broken up, seeing, as it is stated, that they were inefficient; and by accounts of the same date, the Emperor had prohibited his people not to establish cordons between certain states.

We find at the close of a pamphlet on cholera, lately published by Mr. Searle, a gentleman who served in India, and who was in Warsaw during the greater part of the epidemic which prevailed there this year, the following words—"I have only to add, that after all I have heard, either in India or in Poland, after all I have read, seen, or thought upon the subject, I arrive at this conclusion that the disease is not contagious."

In confirmation of the opinion of Mr. Searle, we have now the evidence of the medical commission sent by the French government into Poland. Dr. Leconte, president of that commission, arrived in Paris some days ago. He announced to the minister in whose department the quarantine law, as well as to M. Hely D'Ossel, President of the Superior Council of Health, that it was proved in Poland, entirely to his satisfaction, as well as to the satisfaction of his five colleagues, that the cholera is *not a contagious disease*.

The Minister at War also sent *four* medical men to Warsaw. Three of them have already declared against contagion; so it may be presumed that the day is not far distant when those true plagues of society, cordons and quarantines against cholera, shall be abolished. Hear the opinion of a medical man in France,—after describing, a few days ago, the quaran-

tine and cordon regulations in force in that country :—" But what effect is to be produced by these extraordinary measures, this immense display of means, and all these obstructions to the intercourse of communities, against a disease not contagious; a disease propagating itself epidemically, and which nothing has hitherto been able to arrest? To increase its ravages a hundred-fold,—to ruin the country, and to make the people revolt against measures which draw down on them misery and death at the same time." What honest man would *now* wish that in this country the cholera question were disposed of—in *Chancery*! I shall merely add, that the ten medical men sent from France to Poland, for the purpose of studying the nature of cholera, have all remained unattacked by the disease.—October 15, 1831.

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*The following Remarks are by Mr. Wakely the Editor of the Lancet.*

The cholera, that fierce and unsparing scourge of the living generation, which seems destined to sweep from the face of the earth those victims which the ruthless wars of wicked legislators have spared—the cholera has found its way to Hamburgh, and is now but six-and-thirty hours' passage from our own shores. The event has been already alluded to in the close of the article of our correspondent "Alpha," in a previous part of this week's *Lancet*. The following is an extract from the last Hamburgh papers received in town up to the time of our going to press :

" Borsen-Halle, Oct. 14.

" CHOLERA IN HAMBURGH.

|                    | Taken ill. | Recov. | Deaths. |
|--------------------|------------|--------|---------|
| " Down to Oct. 11, | 21         | —      | 9       |
| 12                 | 16         | —      | 6       |
| 13                 | 5          | 1      | 7       |
| 14                 | 13         | 1      | 9       |
|                    | —          | —      | —       |
|                    | 55         | 2      | 31      |

" It appears that some of these have since proved not to be cholera. The Hanoverian Government has adopted the wise course of doing away with all sanitary regulations, and allowing the cholera to take its course. Experience has shown in Russia, Prussia, Austria, and lastly in Hamburgh, the utter inefficacy of all cordons, the cost of which is immense to of the general causes of insalubrity, of which every great city is so abundantly prolific.

We perceive by a paragraph in the newspapers, which has probably been put forth by some exceedingly active and diligent

were males, and sixteen females, and that it first broke out in a cellar. Of the female cases only one had died. At Altona it is also reported that there had been two cases. No case had as yet been known to have occurred on board any British vessel at Hamburg, but a sailor of a Swedish vessel, which arrived upwards of a fortnight ago from Bahia, has been taken ill and carried to the hospital. At the breaking out of the disorder the consternation was very great and business was temporarily suspended. In the extent which we have made above from the papers, it will be seen that all ceremonies have been removed. These restrictions had at first been very rigidly imposed around the city, — the Elbe, Mucklenburgh, and Hanoverian, having so completely isolated Hamburg, that for four days the latter place was without any news from abroad or communications with friends in the country.

It was supposed on Wednesday that an extraordinary supplement to the *Gazette* would be issued by our Government in the course of that night, containing directions to be observed in this country in the event of its appearance in any particular spot. None, however, has been issued, but we now learn that a proclamation has been agreed to by the Privy Council, at the suggestion of the Board of Health to which the conservation of the public safety has been so recklessly intrusted, which will appear in to-morrow's *Gazette*. We write on Thursday. We cannot possibly therefore acquaint our readers with the nature of its contents, but in our next *ISSUE* the precautionary directions shall receive our best attention.

Thus, despite the most perfect and vigilant coercion that military despotism ever created, this disorder has forced its way in every direction. Vienna has for the last month been the theatre of the pestilence; still further to the north-west, Berlin became afflicted almost at the same time as Vienna, and now Altona, Hamburg, and other towns and cities of the Elbe, between Berlin and the North Sea, have become consecutively afflicted in the order of their proximity to the Prussian capital.

Meanwhile, let us express our indignation, that of all the capitals in Europe, London should be the only one which has permitted the pestilence to knock at its very gates before any efficient hygienic measures were adopted towards the removal appearing at St. Petersburg, all intercourse between the gaol and the town was rigidly cut off, and no instance of the malady occurred for some time; but at length the wife of one of the prisoners, she being also a prisoner, was admitted from

member of the London Board of Health who is anxious to prove to the public that he and his co-adjutors are doing "something" for five hundred pounds a-year which Sir Henry Hallford has procured for them,—that the Board intend to recommend that such places as may be attacked in this country should be isolated from the rest of the community. Sagacious legislators, who cannot prevent the cholera from traversing the ocean, yet can keep it from penetrating a hedge, or crossing a field! Have the "*Board*" of Health—we ask the question emphatically—made themselves acquainted with the results of the *dispersion* of the population of Telfis? If they have not, they deserve the bitter reproaches of every friend of humanity and science.

### FACTS REGARDING CHOLERA.

(From the *London Medical Gazette*.)

Great pains have been taken by Drs. Russel and Barry in tracing the history of cholera as it manifested itself at St. Petersburg and the adjacent places. Their inquiries have been chiefly directed to ascertaining its mode of propagation, with a view to determining the question of contagion; and although some of the facts are difficult to reconcile with any of our prevalent theories upon the subject, yet we must say that the great majority of them point to infection conveyed by persons, and not by goods or clothes, as the usual source of the contamination. The gentlemen alluded to seem to have exerted themselves to lay aside all preconceived opinions—marking the events passing under their own immediate observation, and in tracing the history of what they did not themselves witness—admitting only the testimony of those who had seen what they narrated; a caution which they were led to adopt in consequence of the colouring which they found to be often given to circumstances according to the views entertained by the narrator as to the nature of the disease itself. Of the many important facts which their last letters (received a few days ago) contain, we can only give a few, but we hope soon to see the whole laid before the public in a systematic shape. There is at St. Petersburg a city prison, under the medical charge of Dr. Bish, an intelligent physician, and previously to the appearance of the epidemic, an anti-contagionist. He, as well as all the other officers of the establishment, resides within the walls of the prison, by which all communication with the neighbourhood is prevented. On cholera the respective governments, and the loss incalculable to the industrious classes."

It is described as being hitherto exclusively confined to the lowest and most dissolute characters, thirty-nine of whom

one of the hospitals to which she had been sent to be cured of a syphilitic complaint, no one labouring under such being retained for treatment in the prison. On her return she passed through the apartment where her husband was; she spoke to, and saluted him, but proceeded in a moment to the part of the building appropriated to females. She had some diarrhoea when admitted, which on the following night proved to be cholera, and of which she died in twelve hours. Three women, who had been in the room with her, were next taken ill, and after them her husband, who also died. There were four hundred persons within the walls, and of these twenty-seven had cholera, which in fifteen proved fatal. No case occurred in the portion of the prison alloted to males, it being apart from the rest.

There is a German colony on the Neva, thirteen versts from St. Petersburg. The houses are detached with gardens, and the surrounding country highly cultivated, while the inhabitants are more cleanly, and tندر of the open air, than the Russians. Thither some persons fled on cholera appearing in the capital, one of these, a female, took the disease, and died of it; but it did not spread, no other instance of it having occurred, though her bed soon afterwards to have been used. Indeed, there are many instances in which the beds and clothes of those who have died, seem to have been made use of with impunity. Opposite this colony, on the other bank of the river, which is there about the breadth of the Thames at Blackfriars, are Russian villages; but they did not escape, though the locality was as salubrious as that of their German neighbours. It is a curious fact, that another German colony, on the road to Moscow, between Yehor and Gopora, escaped, although the disease raged at both the places just mentioned, but it was observed that no travellers ever stopped at the German village, because the others afforded much better accommodation.

At Cronstadt, as at Moscow, no case occurred among the military cadets (150 in number), all communication having been cut off between them and the rest of the fortress; but, on the other hand, several instances happened where persons had the disease, though no communication with any source of infection could be traced. Thus, a man, confined by hæmoptoe on the third floor of a house, who had not been out of the room for many days, and who saw no one who had been exposed to the disease, took it notwithstanding. At the Foundling Hospital a good many children died of cholera, and several nurses had it; and it is a curious fact, that when any of these last, who were suckling, had the disease, so as to ren-

der it necessary for the infant to be given to another nurse, none of those who gave the breast in this way became affected with cholera, although, in many instances, the infant's clothes were not changed.

### THE CHOLERA AT VIENNA.

The mortality from the cholera in this capital, during the first month of its visitation—that is to say, from the 13th of August to the 13th of September, amounted to no more than one hundred deaths. But about the latter period, a heavy rain and storm having prevailed for the better part of three days, the disease broke out with the most alarming violence on the night of the 13th, and, in the course of four-and-twenty hours, swept away eighty victims, and this principally in the city. In one little street, not containing above ten or a dozen houses, six persons died on that night. The higher classes seem to have been peculiarly singled out for the ravage; and the Doctors Sidprowitseh, Gassner, and Roehrig, were among the first who fell. Since this alarming burst, however, the cholera has not gone on with proportional fury: it is comparatively tranquil, though the deaths are still by no means inconsiderable.

If the local peculiarities of Vienna be taken into account, it is not difficult to explain why the higher orders have particularly felt the severity of the disease, and also why the city has been its principal haunt. Vienna, the city, is small, compact, and surrounded by suburbs, from which it is separated by a wide glacis. The streets are very narrow, and the houses immoderately high. Yet it is here that the higher classes reside, though their first-floors are generally destitute of both air and light. The lower classes, meantime, enjoy the upper stories, as well as the more spacious and airy suburbs.

It should not escape observation, too, that Vienna is almost completely hemmed in with a chain of mountains; which, however, do not protect it from violent gales during the best part of the year, and especially about the equinoxes.

Rheumatism, in a severe form, is a constant resident at Vienna; and, every autumn, a malignant dysentery prevails, of which the mortality is considerable. The people, too, it may be remarked, particularly the higher orders, are fond of *good living*.

On the whole, it would seem to augur well for the future progress of the complaint, that in Vienna it has not been more severe; for few cities in Europe, perhaps, possess more of those elements which constitute the *fojantes* of this direful malady.